

IN THE CLAIMS:

Please add new Claims 11 to 16 and amend the claims as shown below.

The claims, as currently pending in the application, read as follows.

1. (Currently Amended) An interface apparatus for inputting information from an external apparatus, comprising:

a first circuit for, ~~when the inputted information is information which was changed within a predetermined time, invalidating said information in a case where there is a change in first input information, fetching second input information after an elapse of a predetermined time;~~ and

a second circuit for, ~~when the inputted second input information fetched by said first circuit is not matched with a protocol of the first input information, skipping said the fetched information according to the protocol.~~

2. (Currently Amended) An apparatus according to claim 1, wherein said first circuit comprises:

a ~~data~~ change detector for outputting a reset in the case where there is a change in ~~said the first~~ inputted information;

a timer for ~~inputting the reset output by the changed detector and outputting a trigger after the elapse of [[a]] the predetermined time after said reset was inputted from the input of the reset;~~ and

a ~~data~~ latch for inputting ~~said the trigger output by the timer and fetching the second input~~ information.

3. (Currently Amended) An apparatus according to claim 1, wherein ~~said the external apparatus forms the first input information such that same information does not continue is non-continuous information.~~

4. (Currently Amended) An apparatus according to claim 1, wherein the first information which is inputted from ~~said the~~ external apparatus is inputted to ~~said the~~ first circuit and the second information fetched by ~~said~~ first circuit is inputted to ~~said the~~ second circuit.

5. (Currently Amended) A printer comprising:

a first circuit for, ~~when inputted information is information which was changed within a predetermined time, invalidating said information in a case where there is a change in first input information, fetching second input information after an elapse of a predetermined time;~~

a second circuit for, when ~~said inputted the second~~ information fetched by the first circuit is not matched with a protocol of the first input information, skipping ~~said the fetched~~ information; and

a printer engine for printing the second information fetched by ~~said the~~ first circuit, that is, the information which ~~was~~ is determined by ~~said the~~ second circuit ~~that it is matched with to match~~ the protocol.

6. (Currently Amended) An information processing method for inputting information from an external apparatus, comprising:

a first step of, when information inputted from an external apparatus is information which was changed within a predetermined time, invalidating said information in a case where there is a change in first input information, fetching second input information after an elapse of a predetermined time; and

a second step of, when the second input information fetched by the first step validated in said first step is not matched with a protocol of the first input information, skipping said the fetched information according to the protocol.

7. (Currently Amended) A method according to claim 6, wherein said first step comprises:

a data change detecting step of outputting a reset in the case where there is a change in said the first inputted information;

a timer step of inputting the reset output by the change detecting step and outputting a trigger after the elapse of [[a]] the predetermined time after said reset was inputted from the input of the reset; and

a latch step of inputting said the trigger output by the timer step and fetching the second input information.

8. (Currently Amended) A method according to claim 6, wherein said the external apparatus forms the first input information such that same information does not continue.

9. (Currently Amended) A method according to claim 6, wherein said the first step is executed by a glitch noise filter and said the second step is executed by a logical filter.

10. (Currently Amended) A printing method comprising:
a first step of, when inputted information is information which was changed within a predetermined time, invalidating said information in a case where there is a change in first input information, fetching second input information after an elapse of a predetermined time;

a second step of, when said inputted the second information fetched by the first step is not matched with a protocol of the first input information, skipping said the fetched information; and

a step of printing the second information fetched by said the first step, that is, the information which was is determined by said the second step that it is matched with to match the protocol.

11. (New) An apparatus according to claim 1, wherein, if the fetched information continuously repeats a same value, said second circuit skips the fetched information.

12. (New) A method according to claim 6, wherein, if the fetched information continuously repeats a same value, said second step skips the fetched information.

13. (New) An interface apparatus for inputting information from an external apparatus, comprising:

 a change detector for detecting a change in first input information and outputting a reset upon the detection of the change;

 a timer for inputting the reset output by said change detector and outputting a trigger after an elapse of a predetermined time from the input of the reset;

 a latch for inputting the trigger output by said timer and fetching second input information upon the input of the trigger; and

 a logical filter for, when the second information fetched by said latch is not matched with a protocol of the first input information, skipping the fetched information.

14. (New) An interface apparatus for inputting information from an external apparatus, comprising:

 a change detector for detecting a change in first input information and outputting a reset upon the detection of the change;

 a timer for inputting the reset output by said change detector and outputting a trigger after an elapse of a predetermined time from the input of the reset;

 a latch for inputting the trigger output by said timer and fetching second input information upon the input of the trigger; and

 a logical filter for, when the second information fetched by said latch is matched with a protocol of the first input information, outputting the fetched information.

15. (New) An interface apparatus for inputting information from an external apparatus, comprising:

a timer for timing a predetermined time; and
 a comparator for making a comparison between a length of a low level state
in input information within the predetermined time timed by said timer, and a length of a
high level state in the input information within the predetermined time, and for outputting a
low level signal if the comparison shows that the length of the low level state is longer than
the length of the high level state, and outputting a high level signal if the comparison
shows that the length of the high level state is longer than the length of the low level state.

16. (New) An apparatus according to claim 15, wherein said timer outputs
a trigger after an elapse of the predetermined time from a delimiter existing in the input
information, and said comparator inputs the trigger and makes the comparison in
accordance with the trigger.